

### Overview

The RE-DM4 RADIA Eclipse 4-Channel Integrated Dimmer Module (120 VAC: **FG706-01**; 240 VAC: **FG706-02**) controls up to six circuits with four 1200-watt onboard dimmers and two satellite connectors for RDM series dimmer or switch modules (FIG. 1). The RE-DM4 is designed for use with the RDA series of enclosures in an AMX Lighting™ modular digital dimming system. The RE-DM4 is controlled by AXLink or by dry (contact) closures.

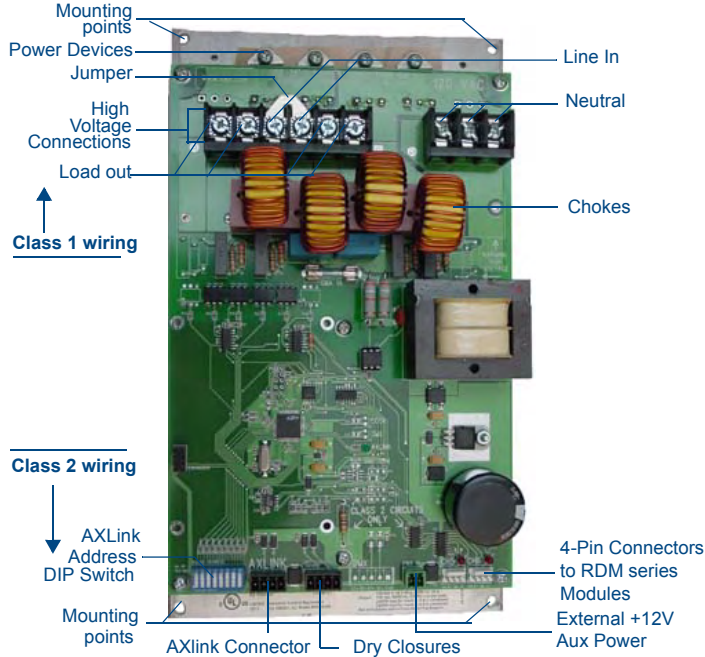


FIG. 1 RE-DM4 4-Channel Integrated Dimmer Module

### Specifications

RE-DM4 Specifications	
Dimensions (HW)	5.75" x 10.0" (146.05 mm x 254.00 mm)
Weight	4.5 lbs (2.04 kg)
Line Input	<ul style="list-style-type: none"> <li>120, 240 VAC, single phase, 2W+G, 50/60 Hz, 2400 W, one feed</li> <li>120, 120/240, 240 VAC, single phase, 3W+G, 50/60 Hz, 4800 W, dual feed</li> </ul>
Output	<ul style="list-style-type: none"> <li>1200 W max. per channel @120, 240 VAC</li> <li>2400 W max. total, all four channels on with single 2400 W feed</li> <li>4800 W max. total, all four channels on with dual 2400 W feeds</li> <li>Line input #1 goes to dimmer 1 and 3; line input #2 goes to dimmer 2 and 4</li> <li>All electrical ratings are for continuous duty</li> </ul>
Wire rating	Use only copper wires rated at 75°C (167°F) min.
Torque terminals	To 20 in-lbs (2.3 N/M)
Maximum wire size	10 AWG (4 mm <sup>2</sup> )
Wire stripping length	0.5" (13 mm)
AXLink Port	4-pin 3.5mm black captive wire connector. AXLink communication signaling with 12VDC power in.
Aux Power	2-pin 3.5mm green captive wire connector. This is a 12VDC power input that supplies additional power to the Radia PCB and connected Radia modules.
Dry Contacts	<ul style="list-style-type: none"> <li>Emergency fire alarm relay connection - Closed relay activates preset 126. Other control is locked out until relay opens. Supports daisy chaining of up to 20 dimmers for this connection, with a maximum current requirement of 200mA when daisy-chained.</li> <li>Failsafe connection - Works with a toggle switch - opening the switch triggers preset 128, closing the switch triggers preset 127. Supports daisy chaining of up to 20 dimmers for this connection with a maximum current requirement of 200mA when daisy-chained.</li> </ul>
BTU/hr	300 single feed (2400 W); 600 dual feed (4800 W)

RE-DM4 Specifications (Cont.)	
Idle current draw	75 mA @ 120 VAC, 50 mA @ 240 VAC, 100 mA @ 13.5 VDC
RDM control current	2 at 200 mA @ 12 VDC with no additional power supply
Certifications	<ul style="list-style-type: none"> <li>FCC</li> <li>CE</li> <li>UL North America</li> <li>IEC-60950 Safety</li> </ul>
Operating Temp Range	0° to 40°C (32° to 104°F)
Included Accessories	<ul style="list-style-type: none"> <li>2 4-pin 3.5mm captive wire connector (<b>41-5047</b>)</li> <li>4 #8-32x1/2" F-point mounting screws</li> </ul>
Required Enclosures	<ul style="list-style-type: none"> <li>RDA-ENC2 (<b>FG606-10</b>)</li> <li>RDA-ENC4 (<b>FG606-11</b>)</li> <li>RDA-ENC6/6B (<b>FG606-12/13/15</b>)</li> <li>RDA-ENC12B (<b>FG606-14/16</b>)</li> </ul>

### Suggested Loads

Dimmed	Switched
Incandescent	Motors
Neon, cold-cathode	Fans

### Caution: Pre-Installation Notes

**WARNING:** This unit should be installed only by qualified electrical personnel, and in compliance with all national electrical codes, local codes and ordinances. To prevent possible personal injury or death, disconnect power to the enclosure at the breaker box before attempting to work with any AMX Lighting modules.

- All Class 1 and 2 wiring must be connected to their dedicated terminals.
- Class 1 wiring should be connected through the top of the enclosure, and Class 2 wiring through the bottom.
- Load conductors must be same size as line conductors, regardless of connected load.
- Disconnect power while installing or connecting the unit.
- Keep top and bottom air vents clear at all times, and maintain 12" (30.48 cm) clearance around the top and bottom.
- Test loads for shorts before connecting.
- Class 2 wiring must be rated 300V or higher.
- For indoor use only.
- AC lighting loads only.
- This module may require extra power from the AXLink connection or an external power supply connected to the control card.
- For more information, refer to the RE-DM4 instruction manual available at [www.amx.com](http://www.amx.com).

### Radia Lighting System Configuration Pages

The AMX Radia Web pages provide a simple interface for users of the Radia Duet module. The web pages reside on the AMX master when running the Radia Duet module and may be accessed through Internet Explorer or Mozilla Firefox. The RE-DM4 may also be configured using NetLinX code or a terminal. For more information, refer to the RE-DM4 instruction manual available at [www.amx.com](http://www.amx.com).

### High-Voltage Connections

Each AMX Lighting module has its high-voltage connectors marked on its circuit board. Line, load, and neutrals are also clearly marked.

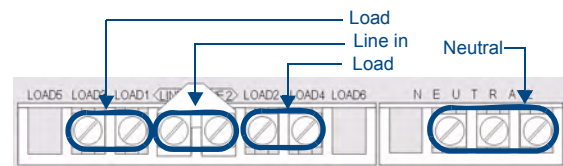


FIG. 2 High-voltage connections

### Line-in Connections

- Using two feeds for Line 1 and Line 2 provides two 2400 W inputs.
- With a jumper, Line 1 and Line 2 provides a single 2400 W input (FIG. 3).

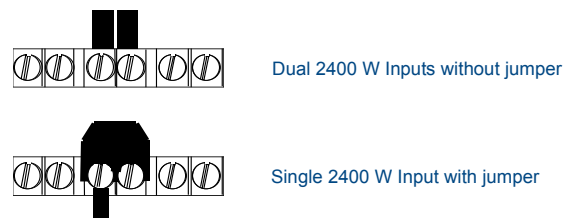


FIG. 3 Line-in Connections

## Low-Voltage Connections

The low-voltage area in the AMX Lighting controllers contain connections and DIP switches for AXLink, dry closures, and RDM module connectors. On the controller cards, low-voltage power for the board is supplied either by line power, optional auxiliary power supply (RDA-PSM), or the +12 VDC pin on the AXLink connector.

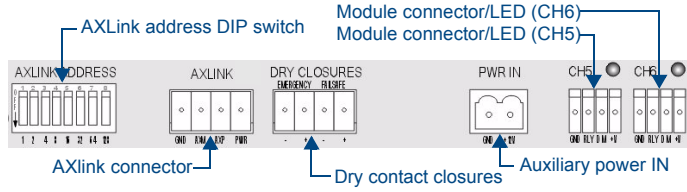


FIG. 4 Low-voltage connections and DIP switches

**WARNING:** Disconnect the main power to the AMX Lighting controller at the breaker box if rewiring the low voltage connections.

## Dry Closure Connections

Dry contact closures from other equipment can be connected to the Radia Eclipse dimmer module to provide direct manual control of lighting loads (FIG. 5).

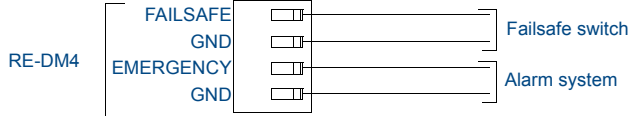


FIG. 5 Dry Closure Connections

Each dry contact closure has two pins: ground and contact. To activate each dry closure, connect the ground and contact.

## Setting AXLink Address Numbers

Set the AXLink address number (1-255) for the RE-DM4. This number must match the device number in your Access program.

**Note:** By turning all switches off, all circuits will go to 100 percent so that the installer can test the high-voltage connections without having connections to a control system.

## Connecting AXLink

Connect the 4-pin captive-wire AXLink from the RE-DM4 to the Central Controller for AXLink control of the dimming system.

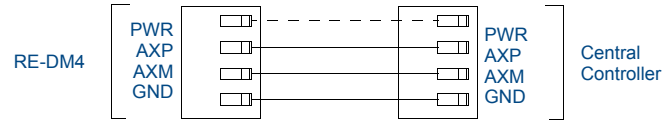


FIG. 6 Connecting AXLink

## RE-DM4 4-pin module connector (male)

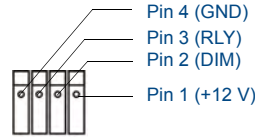


FIG. 7 RE-DM4 module connector

## Lighting Application Drawings

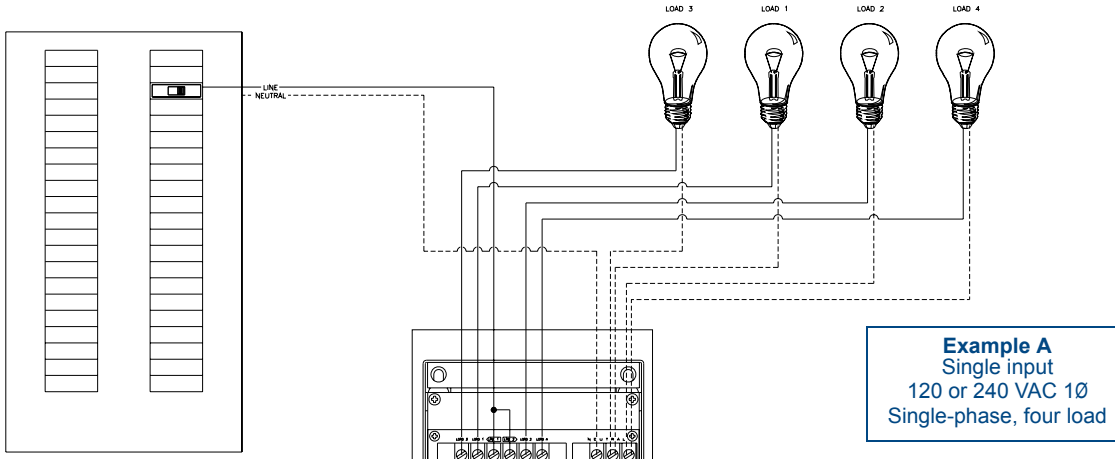


FIG. 8 Example A

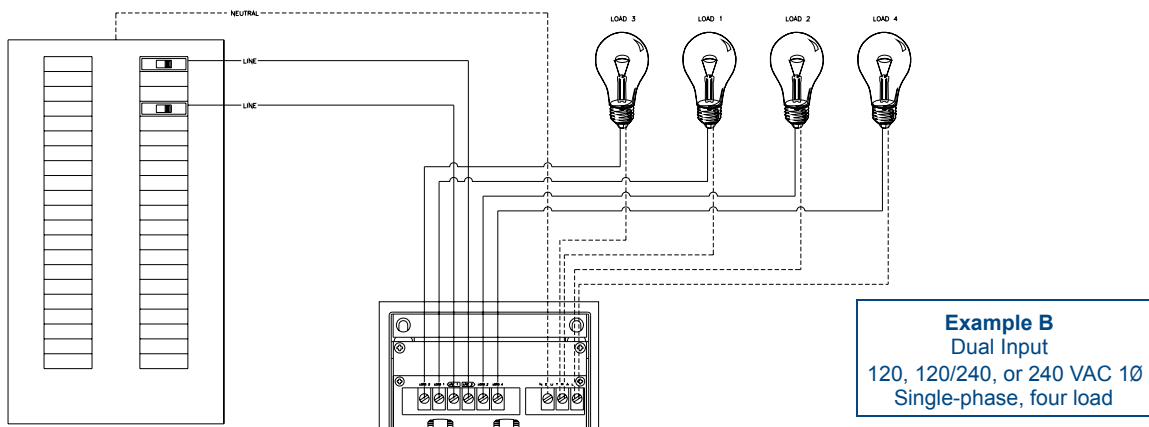


FIG. 9 Example B

For full warranty information, refer to the AMX Instruction Manual(s) associated with your Product(s).

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